Sierra Leone Market Analysis

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I. Executive Summary

The market analysis herein includes a review of consumption, production and import data on commodities to determine which, if any, would be appropriate for monetization in Sierra Leone without foreseen disincentives to local production or significant disruptions to commercial markets.

Findings of this assessment include:

- Monetization of up to 10,300 mt per annum in two shipments of US No 2 rice with 20% broken would not create a disincentive to local production or unduly disrupt commercial markets.
- Monetization of up to 1,675 metric tons per annum of Hard Red Winter (HRW) 11.5 – 12.5% protein wheat per annum would not create a disincentive to local production or significantly disrupt commercial markets. Monetization of up to 1,900 metric tons per annum of soft wheat flour (suitable for baguette production) would not create a disincentive to local production or significantly disrupt commercial markets.
- Monetization of up to 309 mt per annum in of US Vegetable oil would not create a disincentive to local production or significantly disrupt commercial markets.
- Calling forward of either wheat or rice should take place for delivery in Freetown between December - April which is the dry season when discharge from the vessel is easiest.
- Monetization of wheat is to a sole buyer and therefore the sale may be constrained if the buyer does not come to the table fairly. However the miller is buying HRW wheat at the moment and therefore will not be discounting the price based on Argentine or Ex Soviet Union wheat prices.
- Seaboard Corporation might fight the monetization of wheat flour, however they would have the opportunity to purchase it (at a reasonable price)
- In all cases sale based on CNF FO terms will be possible
- There are no unusual certification criteria for importing commodities into Sierra Leone.
- Potential buyers are capable of either opening irrevocable letters of credit for larger quantities and or putting up an upfront guarantee, smaller buyers will pay cash in advance for smaller quantities
- Care will need to be taken with the charter party to take into account the poor discharge conditions in the port, care will also need to be taken with the chartering to ensure the vessel is able to handle the discharge requirements (vessels will need their own cranes).
- While small lot sales may result in slightly better prices, if the monetization agent cannot get the same dispensations as the local traders on the duty payments, these sales may result in lower cost recovery

The projected sales price for rice is $400 / mt CNF FO Freetown which translates into a 63% cost recovery and 94% of import parity (IPP).

The projected sales price for HRW based on today’s market for use in planning purposes is $220 / mt CNF FO Freetown which translates into a 63% cost recovery rate and 63% IPP.

The projected sales price for Vegetable oil is $800 / mt CNF FO Freetown which translates into a 63 % cost recovery and 95% IPP.

Table 1; Potential Commodities to be Monetized and their Estimated Cost Recovery

Commodity	HRW Wheat 11.5% PRICE ($US / MT)	US 2 Rice PRICE ($US / MT)	Vegetable Oil PRICE ($US / MT)
FAS	$293	$511	$1,047
Ocean Freight	$125	$125	$125
Subtotal C&F	**$318**	**$636**	**$1,172**
Anticipated Sales Price	$220	$400	$800
Cost Recovery	**63%**	**63%**	**68%**

Table 2; Potential Income from Annual Sales of Monetized Commodities

Year 1

Commodity	Price	Tonnage	Total
HRW	$220	1,675	$ 386,000
US No2 rice	$400	10,300	$4,120,000
Vegetable Oil	$800	309	$ 247,000
Total			**$4,735,700**

Year 2

Commodity	Price	Tonnage	Total
HRW	$220	1,675	$ 386,000
US No2 rice	$400	4,000	$4,120,000
Vegetable Oil	$800	309	$ 247,000
Total			**$4,735,700**
Total 2 years			**$9,471,400**

Comments to be deleted

There are considerable problems in collecting reliable data from any ministry or office in Sierra Leone and none of the data collected can be considered accurate. The Customs Authority has tried to capture all their imports from 2007 to present day. In the middle of these dates the way data was collected was changed making review of the data difficult. Customs gave me the data from part of the two time periods. It is very clear to me that the importers are under reporting tonnages and prices when they are importing rice, vegetable oil, and wheat flour. Taking the known tonnage achievable in a 20 ft container, compared the value declared (and the tonnage) under reporting is approximately 40%. Cross referencing this information with information from the two main shipping lines (and extrapolating to the third) it is clear that there is regular import of these commodities from the Asia and Europe with imports doubling the month before Ramadan. The three main lines visit Freetown once a month.

There is a black market in Sierra Leone; the official exchange rate for $1 was around 3,600 leones, whereas the black market rate was 3,850. This makes the sale of monetized commodity in leones very attractive since the traders do not have to source foreign exchange. Furthermore while paying proper $ invoices is possible, there are problems acquiring the dollars from the banks in terms of time taken to collect the dollars. Finally recently the leone has depreciated significantly against the dollar (estimated 18%) which has made foreign exchange sourcing harder, and reduced trading tonnages.

Customs duty
There is a disagreement between what custom reports as the method to establish duty and the method the traders report paying on. Traders report that custom duty is paid on a government set price for the commodity (CRS confirmed this). Custom reports that duty is now paid on the CIF FO price; however they also said that duty levels were rather flexible and if one was connected politically different systems applied.

Price fluctuation
CRS has suffered quite extensively over the price fluctuations over the last 3 years. The sale of rice had been based on a much lower price, which meant when the world prices shot up, CRS was able to sell the rice at much higher prices than anticipating – allowing the to finance a no cost extension; however the prices of wheat dropped significantly which resulted in much lower than anticipated cost recovery which then affected their no cost extension. These significant prices fluctuations are impossible to predict; I have been more bearish on cost recovery.

Commodity Analysis
Sierra Leone's main staples are rice and cassava, with other carbohydrates being provided by bananas, and an increasing consumption of yellow maize. The population believes that if they have not eaten rice at least once a day, they have not eaten. The main source of protein is through ground nuts served up nearly every day in some form or the other however meat, predominantly cow or some goat also appears to be eaten regularly. There is significant movement of livestock from across the borders, (the vetinary officer in Koinadugu District estimated about 180 cattle per week and a small number of goats). However this trade is price sensitive and when the local current declined against the dollar, trade petered out and is waiting for price adjustments within SL. There are considerable barriers to market access due to a very poor road infrastructure and very small surpluses being produced by numerous small holder farmers. The main roads are dirt, which turn to mud when it rains tripling transit time (if trucks attempt it at all). There are very few roads. Off the roads there are merely single line tracks linking the villages deep into the bush. Motorbike or foot are the only means of transport linking these areas.

This is not a food insecure country it's a food deficit country. The difference being that Sierra Leone has the capability of feeding its people. The country gets ample rainfall and even when they have 'low' rainfall – it is higher than countries much worse off. Therefore it is a management and perception. From a very brief look at trade – I would say there is a surprising lack of goods moving along the roads. There appears to be regular deliveries of vegetables (tomatoes, green beans, egg plant, lettice, ?,?) organized mostly around women groups set up by FAO (over a 10 year period). However it also appears that the Freetown market is reaching saturation point, with the women reporting that many of the prices for the vegetables have dropped (in some cases below cost of production). Some of the women's groups are looking to diversify, particularly into irish potatoes, however they do not have the husbandry knowledge. They believe that they will be able to store potatoes over a longer period and therefore better time deliveries to the market.

Wheat
Wheat is imported either as bulk wheat or as European wheat flour there is no local production of wheat and the climatic conditions preclude it being developed. The bread produced is predominantly in baguette form and is sold in all major towns, mostly through street vendors (young men hawking 50+ baguettes (fat and about 30 cm long) on wooden palates on their heads, handed out in newspaper or plastic bags at about $0.25 per baguette); there is also a much smaller market for pastries, biscuits, loaves, rolls, and other 'street food'. While it was impossible to find the Sierra Leone Baking Association mentioned in the 2006 Bellmon, the baking sector appears to be strong and increasing, and still operation in the four categories mentioned before;

- very large scale bakeries
- large scale bakeries
- medium scale bakeries
- small scale bakeries

Sierra Leone has one working wheat mill Seaboard West Africa Ltd, operated by the US Seaboard Corporation / Seaboard Commodity Trading and Milling. The mill has not upgraded its equipment since the 2006 Bellmon; it has a total milling capacity of 150 mt /

day, 10 metal silos with 840 mt capacity each, is run entirely on diesel (500 gallons per day) making its operating costs very high. Extraction rates are now running at about 77% (compared to 75% in 2006), and the bran is still being exported. Due to significant competition from imported wheat flour the mill is running at under capacity, processing approximately 16,500 mt per annum compared to an estimated capacity of 39,600 mt Bazzy & Sons are their local partner managing the majority of sales (and credit terms) to the smaller distributors.

Seaboard is importing mostly HRW 12.5% protein (though this year they tried some Latvian wheat) and milling about 1,300 mt of wheat producing around 1000 mt of wheat flour per month. They have three old evacuators at the port and intend to replace one; they achieve a discharge rate of max 850 mt per WWD SAHEX.

Seaboard West Africa reported import duties and domestic taxes

Duty	**Rate**
Duty	2.5%
ECOWAS	0.5%
Bureau Standards	0.03%
Sales Tax	15%

Seaboard reported that they were paying duty on the sate of $275 CNF FO Freetown. Customs reported that duty should be on the real declared CNF FO Freetown report (see additional notes under comments).

Custom's reported import duties and domestic taxes

Duty	**Rate**
Duty	5%
Sales Tax	15%

Interestingly in the last 9 months CRS has monetized under the CORAD consortium 7,000 mt of wheat – equivalent to 42% of the commercial bulk wheat imports and equivalent to 17.5% of the total estimated wheat flour consumption. Seaboard Corporation is well connected in the US and is thought to have pulled strings. The monetization sales offer distinct advantages to Seaboard; payment in leones, monthly payments, lower prices and since they are the sole seller to their own company it is only replacing their own sales of HRW and avoiding a difficult port to operate in with high demurrage costs. CRS reported that their sale in March was at $250 / mt CNF FO Freetown, around that time HRW was trading at about $245 / mt FOB – this is approximately $80 / mt below the commercial market at that time delivered into a good port and probably around $120 – 140 / mt below the real cost of delivering to Freetown.

Sales to Seaboard have been on credit (over three months) on the basis that the company is American and can be trusted to pay.

Another interesting point is that although Seaboard has imported an increased amount of wheat at a significantly reduced price they have not been able to significantly increase their commercial sales implying a limited off take for HRW flour (generally not good for baguette production).

Finally there have been disputes between the monetization agent and Seaboard on the actual weight of wheat delivered. Seaboard claiming that their scales inside the mill are accurate, whilst the monetization agent using (as is normal, while inaccurate) a draft survey. (Draft surveys are more inaccurate at lower tonnages – therefore over 15,000 mt – it is fairly easy to estimate weight, below 5,000 mt on a much larger vessel it becomes significantly more difficult.) In normal situations you would base the weight on delivery of a single hold, and weights are final at loading as per loading inspection – however if you are having to share a hold because of the small tonnages then it becomes more complicated.

Wheat flour

Trajco Import & Export, a general trader, is the largest importer of wheat flour and claim to be importing 1,500 mt of containerized wheat flour per month and covering 90% of the imported flour market. Mostly they are importing from Belgium. There are also a number larger bakeries importing relatively small quantities directly; records show wheat flour also coming in from Netherlands, Gt. Britain, and a small amount from the Arab Emirates.

The two main container shipping lines (Maersk and Grimalidi) reported shipping approximately 1,500 – 2,250 mt of wheat flour from Europe into the port each month (approximately on average 24,000 mt per annum). (There is one other container shipping line servicing Sierra Leone). Before Ramadan shipments increase significantly, during the rainy season shipments reduce.

Extrapolating from the population numbers in 2003, and the estimated consumption of wheat flour in 2003 of 68,948 mt the estimated average per capita consumption was 14.19 kg. This appears to be very unlikely. 2007 saw the largest import of wheat at just under 19,000 mt, along with wheat flour imports which according to anecdotal evidence of about 18,600 mt (custom records were just under 10,000 mt), thus giving a total supply of 32,600 mt of wheat flour. At the time there were no restrictions stopping additional imports to fulfill the consumption needs – therefore the assumption is that imports are matching the real consumption. If one takes the estimated import equivalent as wheat flour in 2007 of 32,600 mt as the total consumption of wheat flour divided by approximately 5.3 million people (using population growth estimated of 2.2% per annum and the 2004 census estimation of population), this equates to wheat flour consumption at ~6.1 kg per person per year. Furthermore wheat flour consumption peaked in 2007 prior to the very high wheat prices, even though wheat prices have dropped back to earlier levels, wheat consumption has not recovered, a trait seen in other African countries and probably related to the global economic situation.

Extrapolating the same calculation the 5 year average consumption appears to be around 5.7 kg pp pa. However consumption does seem to be increasing, and if one works on the premise that the imports match the actual supply then in 2009 actually consumption is probably around 6.6 kg pp pa.

Wheat imports and consumption using the 14.19 kg pp pa consumption figure

	2005	2006	2007	2008	2009
Production	-	-	-	-	
Commercial Imports bulk wheat	16,000	17,000	18,928	15,633	16,220
Milled flour equivalent	12,000	12,750	14,000	11,700	12,366
Wheat flour imports	34,704	15,000	18,600	18,000	24,000
Exports	-	-	-	-	-
Total supply	46,704	27,750	32,600	29,700	36,366
Consumption	72,043	73,643	75,278	76,949	78,657
Balance	(25,339)	(45,893)	(42,678)	(47,249)	(42,291)

Wheat imports and consumption using average 5.7 kg pp pa consumption figure

	2005	2006	2007	2008	2009
Production	-	-	-	-	-
Commercial Imports bulk wheat*	16,000	17,000	18,928	15,633	16,220
Milled flour equivalent	12,000	12,750	14,000	11,700	12,366
Wheat flour imports	17,000	17,500	18,600	18,000	24,000
Exports	-	-	-	-	-
Total supply	29,000	30,250	32,600	29,700	36,366
Consumption	29,160	29,807	30,469	31,145	31,836
Balance	(160)	443	2,131	(1,445)	4,530

* 2007 – 2009 bulk wheat imports provided by Seaboard West Africa

Based on the five year average bulk wheat imports are at about 16,750 mt per annum and wheat flour imports are at about 19,020 mt per annum.

Based on the 5 year average import figures it is estimated that monetization of **1,675 mt of HRW 11.5% bulk wheat** and **1,900 mt of wheat flour** (10% of the 5 year average imports) would not significantly displace commercial sales.

While monetizing wheat should be possible it appears that Seaboard as the sole buyer of wheat flour has been exploiting its monopoly. Therefore one would either use the threat of local flour sales as a method to increase the bulk wheat price, stating that if the bulk wheat price was not at a reasonable enough level, wheat flour will be monetized; or simply monetize US wheat flour made from HRW 11.5% (there would also be possibility of shipping wheat flour more suitable for baguette production which would sell better into the local market than the wheat flour based on HRW). This would open the bids up to competition between Seaboard and Trajco, and if handled well could also include some of the smaller bakers presently importing small numbers of containers from Europe. Small lot sales of wheat flour from a warehouse in Freetown are unadvisable. Wheat flour does not keep well in humid conditions and needs to be moved quickly through the private sector distribution channels. If there were delays in the sale of the wheat flour it would quickly loose condition and would then have to be sold at large discounts.

Potential Larger Wheat (grain and flour) Buyers in Freetown

Potential Buyers	Location
Seaboard West Africa	Freetown
Trajco Export Import	Freetown

Table 5: Cost Recovery and Market Price Analysis

Wheat 11.5% Protein	PRICE ($US / MT)
FAS	$193.00
Ocean Freight	$125.00
Subtotal C&F	**$318.00**
Anticipated Sales Price	$220.00
Cost Recovery	**63%**

Rice

The primary staple in Sierra Leone is rice; if a family has not eaten rice for one meal of the day then they consider that they have not eaten. The 2004 census calculated rice consumption at 91.2 kg per person per annum. Rice is grown on upland rain fed conditions and lowland valley swamps under a variety of irrigated and non irrigated ecologies. 63% of rice produced is upland and grown as a mixed crop[1]. It is planted together with maize, cassava, sorghum and pearl millet (ratio of 7 : 1 : 1 : 0.5 : 0.5)[2] . Typically in the past an upland rice farmer would normally plant one to three different varieties of rice seed, however it is now estimated that over 50% of upland rice planted is NERICA rice, originally from seed handed out by government and NGOs, much is now from saved seed. Upland rice yields are generally low (between 0.4 – 1 mt per hectare) partly due to the mixed cropping, and partly due to poor husbandry whereas rice yields in the mangroves is estimated at 2 – 2.5 mt per hectare. In 2008 on average Sierra Leone estimates the rice yields at 1.43 mt / hectare[3]. Rice is for the most part harvested from December onwards, with local rice being available in the market from January – April. There is considerable unrecorded trade across borders into Liberia and Guinea particularly from Koinadugu and Kambia, partly this cross border trade is driven by poor in country infrastructure (potentially as much as 85% of the surplus production from these districts crosses the border into the neighbouring countries). Up country there is a tradition of par boiling local rice which again is preferred across borders compared to consumers in the Freetown markets.

Production data is difficult to verify; for instance in 2007 FAO estimated paddy production at 800,000 mt, WFP estimated production at 588,003 mt and the PEMSD

[1] Agricultural Industries Emerging from Conflict; Analysis of 6 value chains in Sierra Leone
[2] Contribution of the Rokupr Agricultural Research Center (RARC) to Agricultural Development in Sierra Leone
[3] PEMSD

(Government of Sierra Leone Statistic department) estimated production at 562,000. The FAO figures (reported in 2006 and 2007) seem unrealistic and may have been based on an over estimate of yield at 2mt / hectare (reported in a World Bank document) rather than the government of Sierra Leone's estimate of about 1.35 mt / hectare.

There are three main rice importers (Commodity Trading Corporation, Bazzy (Ibrahain Bazzy and Sons) and Tajco along with medium and small scale importers. The three large rice importers are mainly importing break bulk (ie rice in 50 kg bags), however they also import through containers, while the smaller importers predominantly use containers. Louis Dreyfus and Novel are both employing collateral managers to control stocks in warehouses sold but unpaid for to the local importers. The local importers pay all import costs including duties, and the goods are placed under the control of the collateral manager until such time as the importer pays for the cost and storage of the goods. (Similar to the set up in Liberia).

Again custom data is entirely unreliable and therefore import estimates have to be arrived at through anecdotal evidence through the interviews. Unfortunately it was impossible to interview Bazzy, however they were considered to be doing the same amount of rice trade as the other two large imports. CTC and Tajco both estimate their imports at around 80 – 90,000 mt per year. Maersk reports shipping containers equating to around 250 – 625 mt per month, Grimaldi does not ship rice (does not connect to the relevant lines). Approximately 70% of imports are for lower quality cheap rice with 25% broken grains from Thai, Indian and Vietnam. The rest of the market is made up of the 5%, 15% and 100% broken. (Imported par boiled rice is not popular in Sierra Leone.) CTC reported that the last shipment they bought last month arriving now is from India, 25% broken, $425 / mt CNF FO Freetown. Traders report that competition on rice sales is very strong, furthermore they work on volume turnover to create their income rather than significant margins. Profit per bag is estimated to be around $1.50. Traders offer credit to known customers supplying the Freetown and up country town shops and smaller traders. The length of the credit period depends more on the season than the relationship with the customer and ranges from a few days to around 21 days. If one of the larger traders wishes to move stock faster, he offers better credit terms than the competition and the smaller traders all move across to him. There is very little customer loyalty.

Traders and customs report that the duty is set at 10% and sale tax for the moment is waived. Traders report that they also pay additional duties of 3% (ECOWAS) and 0.5%. Traders report that the fixed CNF FO price for duty calculations is $375 / mt whereas customs report that it is based on the contractual CNF FO price.

Rice Balance Sheet

	2004	2005	2006	2007	2008
Production	542,000	552,000	562,000	588,004	680,097
Milled rice *	325,200	331,200	337,200	352,802	408,058
Imports **	80,000	80,711	90,393	105,000	161,161
Aid shipments		6,500	5,750	3,625	1,395
Exports***				13,600	13,600
Total supply	405,200	418,411	433,343	447,827	557,014
Consumption	405,200	418,411	433,343	447,827	557,014

* based on the PEMSD data
** based on the FINTRAC report (the PEMSD data is lower)
*** based on extrapolations from the Rice Value Chain by James Phillips

The above balance sheet is based on production data provided by PEMSD, which appears to be based on constant increases in hectares being planted to rice, as well as year on year increases in yield (from 2007 they have increase production by 15% per year compared to between 2 - 5% the previous three years). While the use of NERICA rice in upland areas has increased yields, it is unclear to what level it has really increased production. I believe that production is actually lower; probably 50,000 mt lower and imports are probably 50,000 mt higher. The above balance sheet would imply consumption ranging from 81 – 102 kg pp pa.

The 2004 census recorded rice consumption at 91.2kg pp pa.

Balance sheet based on consumption at 91.2 kg pp pa, and reduced production

	2004	2005	2006	2007	2008
Production	542,000	552,000	562,000	588,004	617,404
Milled rice	325,200	331,200	337,200	352,802	370,443
Imports	80,000	80,711	90,393	105,000	161,161
Aid shipments		6,500	5,750	3,625	1,395
Exports				13,600	13,600
Total supply	405,200	418,411	433,343	447,827	519,399
Consumption	452,653	462,702	472,974	483,474	494,110
Balance	(47,453)	(44,291)	(39,631)	(35,646)	25,289
Imports based no real deficit	127,453	125,002	130,024	140,646	

Which ever way the balance sheet is worked out there are still considerable imports of rice into the Freetown market, and to some extent up country (in the dry season).

Based on the 5 year average import figure of ~103,000 mt it is estimated that monetization of **between 10,300 – 10,900 mt** mt **25% broken rice of per annum** (10% of the 5 year average imports) would not significantly displace commercial sales and will not affect local production sales.

10,000 mt+ is potentially more than one month's supply and therefore two shipments would provide better selling options. Shipments should be timed not to coincide with the local harvest and main marketing period (January – April), or the rainy season. The best timing would be to have one cargo arrive June, and the following cargo in August (or just prior to Ramadan).

Table 10: Potential Rice Buyers in Freetown

Potential Buyers	Location
CTC	Freetown
Bazzy	Freetown
Trajco	Freetown
Harmony	Freetown

Table 5: Cost Recovery and Market Price Analysis

	PRICE ($US / MT)
FAS	$511.00
Ocean Freight	$125.00
Subtotal C&F	**$636.00**
Anticipated Sales Price	$400.00
Cost Recovery	**63%**

Small lot sales

CRS has been managing a small proportion of small lot sales (out of 9,000mt rice shipped 1,000mt were sold in small lot sales). CRS has limited the sales to 1,000 mt because of the high degree of theft of rice from the port and warehouses; the limited capacity of the small traders to purchase without credit (the larger traders are basically providing credit sufficient for the traders to sell their purchases); the cost of paying the duty upfront. CRS has also felt that there is an advantage in taking some of the commodity into store unpaid; if there was a sudden need to feed refugees – they would have suitable food in stock which could be appropriated. CRS has had success selling ex warehouse; achieving higher prices than the equivalent sale CNF FO Freetown. CRS has been able to direct sales to areas where supply was apparently constrained by traveling into these areas, meeting with the traders prior to the tenders, explaining the tender process. While the small traders rely on the larger traders for credit, CRS has found that they can produce the cash to be able to participate in the sales. The suggestion in the 2009 Bellmon to increase the small lot sales to 25% will be a challenge; the capacity of small traders to provide the cash to make the purchases is limited which means the period over which sales are made will need to be extended, which also means the sales will interfere with the normal workings of the market. Up country sales could also be considered (probably linked to the distribution points to reduce overhead costs). Before this could be handled, an in depth study of the demand in the regional towns, along with the transport differentials from Freetown, and the capacity of the traders to purchase for cash, along with an assessment of the credit dynamics of the traders in Freetown would need to be undertaken. The advantages would be that with the monetization agent arranging the transport (though charging for it in the reflected price) the very small traders up country (1 bag buyers) served by the larger traders who travel to Freetown to purchase on credit from the larger traders) would have access to purchasing rice locally without the additional margins included.

Finally since it appears that the level at which duty is paid (ie either on a fixed rate generally lower than the real CNF FO rate, or the real CNF FO rate) is arranged by influence in the right places, without that influence the monetization agent may pay a higher duty level and have prices higher than the competing trading market. (CRS's logistics manager is very well connected.)

Vegetable Oil

Sierra Leone has enormous palm oil production potential with both wild and cultivated palm trees over the majority of the country. The Ministry of Agriculture estimates that 416,022 hectares was under production in 2008 (29,000 hectares under commercial plantations[4]), which is an increase of 15% over the 2007 figure. (Like the rice data it is probable that the increase has been nearer the 5% level per annum following the previous MOA stats than this sudden 15% increase). The ministry has also estimated that production has been increasing at 5% per annum since 2004 and 15% in 2008, this is unlikely since it takes new palm trees 4 – 5 years to come into production. Surplus production appears to be based mainly in the east of the country and it supply reduces in the rains both because the it is impossible to harvest the palm nuts, and also because transport is so difficult from most rural areas in the rains. All consumers prefer local palm oil production to imported pale vegetable oil and prefer the wild palm oil rather than the cultivated palm oil. However there is a market in Freetown and some of the larger towns up country for imported vegetable oil to fill marketing gaps in local production.

Vegetable oil is imported generally from Malaysia in 20 liter plastic containers with handles which have the additional advantage of being worth around $1 / container for resale once the oil has been consumed. Virtually all shipments of packaged oil are in shipping containers of 20 ft. The standard import quality was CP8 Olein Oil – palm oil from Malaysia. Shipments appear to double in size prior to Ramadan and Christmas.

Customs report that duty on vegetable oil is 10% and sales tax 15% of the contractual CNF FO Freetown price, traders report than the real duty level is around 37% on a fixed of $350 / mt.

[4] World Rainforest Report

Edible Oil Balance Sheet

	2004	2005	2006	2007	2008
Production*	98,123	98,123	98,123	98,123	103,029
Commercial Imports**	6,695	7,759	5,273	5,392	5,819
Food Aid***	2,840	1,900			
Exports****	3,023	3,139	3,065	4,000	4,000
Total supply	104,635	104,643	100,331	99,515	104,848
Consumption liters pp / pa	23.69	23.17	21.74	21.09	21.74

* Based on MOA data, but with a 4 year delay in increased production. Production based on the estimate that 1 mt of African palm nut bunches produces 80 kg of oil
** Commercial Imports based on adjusted Custom Revenue data and the 2009 Bellmon
*** Based on 2006 Bellmon
**** Based on 2009 Bellmon

The above production data does not match USDA FAS, FAO etc data and was sourced and extrapolated from data provided by the Ministry of Agriculture.

Based on the 5 year average import figure of 6,188 mt it is estimated that monetization of **309 mt of US Vegetable Oil** (5% of the 5 year average imports) would not significantly displace commercial sales and will not affect local production sales. Considering the small size of the market it is suggested that the shipment of 14 containers is split into two loads, not to arrive at the beginning or during the rainy season, and if possible timed to arrive prior to Ramadan.

There is the potential to organize small lot sales of vegetable oil into the market. Prior consultation with the trade would be necessary to assure them that it was legal and allowable to sell US Vegetable oil a concern all traders brought up.

Table 10: Potential Vegetable Oil Buyers in Freetown

Potential Buyers	Location
Trajco	Freetown
Hassan Nazzal	Freetown
Bazzy	Freetown
CTC	Freetown

Table 5: Cost Recovery and Market Price Analysis

	PRICE ($US / MT)
FAS	$1047.00
Ocean Freight	$125.00
Subtotal C&F	**$1172.00**
Anticipated Sales Price	$800.00
Cost Recovery	**68%**

Monetization Plan
Option 1; HRW wheat

A. Commodity Specifications and Packaging

Hard Red Winter Wheat
Protein 11.5% based 12% moisture
Moisture 13.5% max
1,675 mt bagged in 50 KG PP bags

B. Impact on Commercial Sales

1,675 mt is 10% of the average annual imports of wheat flour into Sierra Leone and will not significantly displace commercial sales.

C. Anticipated Sales Price

The miller is already buying HRW and is experienced in monetization. As such the miller should be prepared to pay equivalent to commercial values for the wheat quality shipped but in the past has bought at very low prices. However the miller will consider the following commercial reasons to discount the price;

- The uncertainty of when an aid vessel will arrive in Freetown means that the miller has to buy in cover regardless and therefore will hold additional stock for a period of time when the vessel does arrive increasing their carry cost (buying commercial wheat the buyer can expect the vessel to arrive approximately 3 weeks after shipment and therefore plan their wheat consumption around this, the uncertainty of the arrival of the US wheat vessel)

These possible discounts could be mitigated in the contract with the miller by specifying discounts allowable under certain scenarios.

D. Private Sector Participation and Recommended Sales Methodology

Due to the fact there is only one miller in Sierra Leone the sale will be negotiated privately.
The sale will be limited by the fact there will be no competition for the commodity and therefore relies on the miller being realistic about the price he should pay.

E. Duty Free Entry

Selling CNF FO Freetown means that the liability of the cargo is transferred to the buyer upon loading of the vessel. Furthermore it is the responsibility of the buyer to apply for any import licenses required and to pay what ever duty level is in place at the time.

F. In-Country Survey

G. Recommended Financial Guarantee

The buyer is backed up a US corporation and therefore should pay a cash deposit to secure the sale and then payments over an acceptable period of time with some provision for credit terms.

H. Overall Economic Impact

Sale of 1,675 mt of HRW wheat to the commercial mill in Freetown will have neither a negative nor a positive economic impact as long as the additional negative commercial aspects discussed above are discounted for. The miller is already importing wheat to mill and sells wheat flour into the market. The sale will represent less than 10% of the average annual tonnage of bulk wheat shipped to the Sierra Leone.

Option 2 US No 2 Rice max 20% broken

A. Commodity Specifications and Packaging

US No 2 rice max 20% broken
Two shipments of ~ 5,000 mt
Bagged in PP bags
If costs allow containerized

B. Impact on Commercial Sales

Two shipments of ~5,000 mt represent represents around 10% of the imports into Sierra Leone. Splitting the shipments into two will reduce the effect of the sales on the commercial market and should improve the sales prices achieved.

A. Anticipated Sales Price

Sale of US Parrice will be based on the value of low value rices being imported when the contract being made. Buyers of the rice will consider the following commercial reasons to discount the price;

- Having to make a purchase commitment up to and over 3 months in advance
- The uncertainty of when an aid vessel will arrive in means that the rice importers have to buy in cover regardless and therefore will hold additional stock for a period of time when the vessel does arrive increasing their carry cost

D. Private Sector Participation and Recommended Sales Methodology

Sales will be based on CNF FO contractual terms all other conditions to be negotiated. 10% of sales will be based on Ex Warehouse Freetown, and sold in smaller lots to facilitate the smaller traders to participate.

E. Duty Free Entry

Selling CNF FO Freetown means that the liability of the cargo is transferred to the buyer upon loading of the vessel. Furthermore it is the responsibility of the buyer to apply for import licenses and to pay what ever duty level is in place at the time.
However selling in small lot sales ex warehouse Freetown means that import duty will have to be paid, and will only be fully recouped if the duty level paid is the same as the importers are paying. This may not be possible since the importers appear to have special relationships with the relevant ministry people and officials which allows them preferential duty levels.

F. In-Country Survey

G. Recommended Financial Guarantee

Payment by irrevocable confirmed letter of credit or 100% cash payment made no later than 2 weeks prior to vessel's arrival in port of Freetown.

H. Overall Economic Impact

Sale of 10,300 mt US rice to the rice importers in Freetown will have neither a negative nor a positive economic impact. The country is already importing over 100,000 mt of low quality rice each year mostly from India and Thailand. The sale will be to the same importers importing this rice so their distribution networks will not be affected.

Option 3 US Vegetable Oil

A. Commodity Specifications and Packaging

US Vegetable oil
20 liter drums, preferable loaded into 20 ft containers
309 mt

B. Impact on Commercial Sales

309 mt represents an estimated 5% of the commercially imported vegetable oil in the Sierra Leone market. The onward sale of the vegetable oil into the market will be through the traders networks and will therefore not displace their networks sales. Selling 309 mt will not unduly disturb commercial sales of Malaysian oil in the market.

B. Anticipated Sales Price

Sale of US vegetable oil will be based on the value of Malaysian oil at the time of the contract being made. Buyers of the vegetable oil will consider the following commercial reasons to discount the price;

- Having to make a purchase commitment up to and over 3 months in advance
- Price parity with Malaysian oil
- The uncertainty of when an aid vessel will arrive in means that the oil importers have to buy in cover regardless and therefore will hold additional stock for a period of time when the vessel does arrive increasing their carry cost
- The lower resale value of the vegetable oil container in the market once the oil has been consumed

D. Private Sector Participation and Recommended Sales Methodology

ACDI VOCA shall approach the main vegetable oil importers and request that the importers submit letters of interest giving price and quantities that they are interested in. Based on those letters ACDI VOCA will select the most attractive and negotiate further, accepting the best offers made based on the price, quantity and conditions of the sale. Sales will be based on CNF FO contractual terms all other conditions to be negotiated.

E. Duty Free Entry

Selling CNF FO Freetown means that the liability of the cargo is transferred to the buyer upon loading of the vessel. Furthermore it is the responsibility of the buyer to apply for import licenses and to pay what ever duty level is in place at the time.

F. In-Country Survey

G. Recommended Financial Guarantee

Payment by irrevocable confirmed letter of credit or 100% cash payment prior made no later than 2 weeks prior to vessel's arrival in port of Monrovia.

H. Overall Economic Impact

Sale up to 309 mt of US vegetable oil to the oil importers in Freetown will have neither a negative nor a positive economic impact. The country is already importing an estimated 18,000 mt of vegetable oil each year mostly from Malaysia. The sale will be to the same importers importing this oil so their distribution networks will not be affected.

Discharge, storage and transportation

Port;

The main cargo port of Sierra Leone is Freetown with a draft of 10.5 m at the main dry cargo berths. However the harbor has not been dredged for a long time and it is recommended that vessels should aim to have a draft of no more 9.5 m. The port services three main container lines, who take precedence over any other vessel discharging and vessels discharging in the 'container' berth will be removed if a container vessel arrives. The port lacks any working cranes and therefore vessels discharging need to have cranes. Seaboard West Africa owns its own evacuators. The container crane is owned by a private company leased to the port.

Subsequently discharge rates are very slow. Bulk wheat is discharged approximately 850 mt per WWD SAHEX. Bagged rice is discharged at between 350 - 1000 mt per WWD SAHEX (depending on the discharge option and the vessel gear). It is unadvisable to try and discharge bulk or break bulk cargo during the rainy season.

Theft is notorious at the port and great care needs to be taken to ensure the opportunities are minimized; highest theft rates occur on rice cargos, but bulgar can suffer the same fate. Trades report theft on rice cargos can be as bad as 3% and it is worth paying for additional security, CRS reports that their theft levels are now around 1% (however they have not been discharging rice). There are two storage options at discharge; either directly into a warehouse alongside the berths or onto trucks and then delivered to warehouses outside of the port area. The first option allows the discharge rate to be significantly improved but has limited viability due to the high use of the warehouses at the berth. Many of the trading companies have warehouses within the port area, as well as Louis Dreyfus, Novel and WFP (government is trying to get the WFP storage back and has already sub divided half and rented it to a private sector player). WFP indicated that if the space was available they would consider short term renting of the space. The other option would be to approach Louis Dreyfus or Novel, and arrange to store short term under their collateral management agreement. This would allow faster discharge, and subsequent transfer of goods to a warehouse out of the port. It would add handling costs and probably higher storage costs and the warehouse in the port area. The issue of discharging onto trucks is the availability of trucks and the terrible congestion around the port area. A distance of less than 3 km can take over an hour one way from about 9am to 5pm. This linked to the limited number of trucks potentially available at anyone time for port work can significantly hamper discharge of the vessels.

Additional to the warehouses in the port, there are additional warehouses around the port area and around Freetown therefore there will not be problems renting suitable warehousing.

The clearing agents indicated that break bulk rice discharge would cost $22 / mt (however it is negotiable) which includes transport up to a 5 km distance from the port.

Discharge of containers is relatively easy (as long as the sole crane does not break down). Containers are lifted off the vessel and position in the port container storage area to be later loaded onto trucks and carried out of the port to their destinations. Delivering containerized cargo to the port has advantages in terms of theft prevention and according to the figures given by the clearing agent SALS (part of the Bollore (Transami) group).

Estimated container discharge costs

	Per container	per mt
Lift on lift off	82.19	3.57
Transport within port	13.70	0.60
Freight levy		2.00
Clearing cost	100.00	4.35
Transport up to 5 km	135.00	5.87
Storage in the port between 5 - 10 days	8.00	0.35
Total		**16.73**

Transportation

Approximately 75% of CRS distribution is now carried out by the private sector. The remaining 25% is handled by CRS particularly in the rainy season when the trucks struggle to get from the up country depots to the more remote areas on the particularly bad roads. 50% of WFP's transportation is now handled by private sector. Truck sizes range depending of the area of operation. Out of Freetown the trucks are between 15 – 25 mt and between 10 – 15 years old. They are slow, but they turn up. Upcountry the trucks tend to be smaller 2 – 8 mt size and newer. WFP and CRS have had a strongly enforced policy of charging for what ever is missing on arrival which has been very affective and theft along the way is negligible. CRS enters into year contracts with fixed prices which known transports who commit specific trucks. At the time of high fuel prices CRS did increase the contract price by 18%.

Fuel prices have been low and in calculating distribution costs provision should be made for increased fuel prices over the next 5 years.

The following table shows the agreed transport costs in Koinadugu district in northern Sierra Leone between CRS and a private truck contractor. The agreement was made on 1st October 2008; the contractor is talking about renegotiating the prices because of fuel increases (+13.5%) (This will also have been affected by the devaluation of the leone against the dollar by an estimated 18% over the last three months). In the dry season even the longest journey takes only one day there. In the rainy season it can take up to three days. Truckers get hold of contacts at the destination, and along the route and carry trade cargo back. (WFP representatives reported that truck owners in Freetown sent the drivers with only enough fuel money to travel one way, the truck drivers themselves had to find business for the route home to pay for the fuel additional profit was theirs. They claim there is not much overloading because truck drivers do not want to loose their jobs by ruining their trucks (shortage of paid reliable jobs).)

Transport rates from Kabala to the various points in Koinadugu district

Chiefdom	**Miles**	**$/mt**	**Chiefdom**	**Miles**	**$/mt**
Kondembia	15	43.33	Kombili	53	71.21
Badala	21	45.15	Karifaya	62	75.15
Falaba	32	48.79	Mongo Bendugu	76	82.73
Limbaya	37	66.67	Karaon	101	127.27
Alkalia	46	90.91	Bassaya	113	160.00
Yiffin	53	121.21	Kemedugu	115	162.42
Funumbakura	49	106.06	Kasaypayna	114	161.21

Upcountry distribution stores

CRS, CARE, World Vision etc are using Ministry of Agriculture stores as distribution points up country. It appears that each district MoA offices has along side storage facilities. Some of these are held on behalf of the communities who can use them at virtually no cost, to store their surplus crops. Others are used to store MoA distribution commodities (eg old palm husk fertilizer in Koinadugu which no one wants). The Private Sector Development Program PSDP was seen to be upgrading central stores in Koinadugu, Bomballi and Tonkilli. The aim of the program is to facilitate the communities use of these stores, but there might be potential to rent them as well. Additionally to the identified stores for improvement the same district offices had additional stores available for rent.

Kabala, Koinadugu had three 10 x 10 m stores that were empty and could be made available plus the CARE store (if they gave up the lease). One store had a few small holes in the roof which would be easily repaired
Mugraba, Tonkili store ~6.5 x 12 m, 12 foot high apparently in good condition
Both of these stores are accessible from Freetown by good conditioned tarmac road.

It appears that these stores would be available to rent to manage distribution points for onward distribution to the rural health centers or to be utilized in the case of having to feed emergency refugee situations.

WFP has done a survey of the route to and the facilities at Pamelap custom check point (Guinea Border). The road from Port Loko to Pamelap is pot holed, rocky and muddy, and connected with a narrow concert bridge just before Kambia town. There are no warehousing facilities on the Sierra Leone side, however there were two potential structures on the Guinea side, one owed by Mr Yusif Jallop (076 626 727 / 60 59 59 77 / 64 35 36 13), the other by a customs collector (both are used to show movies and football matches at the moment). One structure is 38 x 22 x 8 ft made of mud bricks and coated with cement, divided into two, each with a steel door access point and a window (indicative rental $300/month). The other is 38 x 28 x 11.5, made from cement bricks (indicative rent $1000 / month). They would be in a location to serve supplying distribution food to refugees on the Guinea side of the border, or further into Guinea.

NGO status

At the moment the Sierra Leone government is potentially changing the status of NGOs. It has asked all NGOs to re register with the relevant boards; however this process appears to have issues and ACDI/VOCA is still struggling to achieve registration.

The government wants to make all employees of NGO's tax paying, and remove the duty free status of NGO imports (ie cars etc). At the moment the government is charging sales tax (VAT) on NGO food for distribution under the premise that these taxes will be repaid. So far in 9 months CRS has not received anything back and does not believe it will since the government has no money in its coffers. Therefore this has to be factored in as a cost.